AMENDMENTS TO THE CLAIMS

1-10 (Canceled)

11. (Previously presented) An isolation structure in a semiconductor substrate comprising:

a recessed portion formed with a vertical sidewall within the semiconductor substrate; and

a dielectric material comprising a halide-doped silicon oxide filling the recessed portion, said dielectric material having a dielectric constant lower than the dielectric constant of silicon dioxide.

12. (Previously presented) The isolation structure of Claim 11, wherein the recessed portion comprises a trench structure having a ratio of height to width of less than 2:1.

13. (Original) The isolation structure of Claim 11, wherein the recessed portion comprises a trench structure having a depth of less than 200 nm.

14. (Original) The isolation structure of Claim 11, further comprising a barrier layer disposed between the recessed portion of the semiconductor substrate and the dielectric material.

15. (Original) The isolation structure of Claim 11, wherein the dielectric material has a dielectric constant lower than 3.9.

16. (Original) The isolation structure of Claim 11, wherein the dielectric material comprises a Fluoride-doped silicon dioxide composition.

17-20 (Canceled)

21. (Currently amended) An integrated circuit having a plurality of **[[a]]**isolation regions within a semiconductor substrate, each isolation region defined by:

a trench within the substrate, the trench having a characteristic profile produced by an etch process; and

a halide-doped silicon oxide filling the trench to form an isolation element, an interface between the isolation element and the substrate retaining the characteristic profile of the trench.

22. (Previously presented) The integrated circuit of Claim 21, wherein the halide-doped silicon oxide has a dielectric constant of less than 3.9.

23. (Currently amended) The integrated circuit of Claim 21, further comprising a barrier layer disposed between the interface of the semiconductor substrate and the ~~dielectric material~~halide-doped silicon oxide.

24. (Previously Presented) The integrated circuit of Claim 21, wherein the halide-doped silicon oxide comprises fluoride-doped silicon dioxide.